

CENTRAL INTELLIGENCE AGENCY
INFORMATION REPORT

This material contains information affecting the National Defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C. Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

S-E-C-R-E-T
 NOFORN

COUNTRY	Hungary	REPORT	
SUBJECT	Manganese-Ore Mines at Urkut	DATE DISTR.	5 May 1955
		NO. OF PAGES	2 25X1
DATE OF INFO.		REQUIREMENT NO.	RD
PLACE ACQUIRED		REFERENCES	25X1
This is UNEVALUATED Information			

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
 THE APPRAISAL OF CONTENT IS TENTATIVE.
 (FOR KEY SEE REVERSE)

1. Location.

- a. The manganese-ore mines are located along the northerly slope of Kab Hegy in the Bakony Hills, at trig. point 604, adjacent to the village of Urkut (4705N 1738E).
- b. This is forest land and even the entrances to the pits are hidden with newly planted beech trees.

2. History.

- a. In 1945 the Russians were working only one pit, in 1946 they opened a second pit, and with the arrival of the new Soviet mining machinery, 30 Soviet engineers and technicians came to instruct the Hungarians in servicing the machines. The Russians also enlarged and modernized the mines and introduced three 8-hour shifts. The number of workers increased from 200 - 800 during their administration.
- b. In 1947 the Russians were withdrawn, with the exception of two engineers and some administrative personnel, who are still working there. The mines were officially turned over on 1 September 1952 to the Hungarians. Nevertheless, all important questions have to be decided by consulting the remaining Soviet advisers.

3. Output.

Approximately 600 - 800 miners' truckloads of manganese ore per day.

4. Washing-Separating Installations.

- a. The extracted ore is first sent to the mill to be ground to nut size and from there to the washing basin. The Russians built new basins but did not complete the installations and thus grains which were smaller than 25 microns slipped away with the waste water.

S-E-C-R-E-T
 NOFORN

STATE	X	ARMY	X	NAVY	X	AIR	X	FBI		AEC		ORR EV	X	
-------	---	------	---	------	---	-----	---	-----	--	-----	--	--------	---	--

(NOTE: Washington distribution indicated by "X"; Field distribution by "#".)

S-E-C-R-E-T

NOFORN

- 2 -

25X1

The Germans in their time experienced the same trouble and wanted to build a 2-story concrete tower in which to refilter the waste water. As circumstances then did not permit this project, the Germans sent approximately 50% of the extracted ore in crude state direct to Germany for filtering there. The Russians were unable to operate the German installations, and the percentage of losses increased, quite apart from the fact that the installations had become damaged during the war.

- b. The problem of how to reduce the manganese-ore losses was taken up in 1953 by three experts from the Mining Research Institute (Bányakutató Intézet), Professor Gusztáv Tarján and Engineers László Demeter and András Halász, who have been working and carrying out experiments in Urkut. The three men then went to Sopron with their collective experience, where they continued their experiments in the Technical High School for Mining Engineers. They constructed a new apparatus which was known as a hydrocyclotron. This is a conical apparatus, in the upper part of which there is an opening of approximately 20 centimeters' diameter with double walls. The apparatus moves on a turntable and the centrifugal power drives the small ore grains upwards and presses them to the outer wall and when they have collected there, the water is drawn off.
- c. As the result of the successful experiment, an apparatus of the required size was constructed and the designers declared that their work had been based on Soviet inventions. The Russians then built, next to this separator, three large basins (see par. 4-a) in which the water from the towers is collected.

5. General Information.

- a. It is calculated that the capacity will be increased by 20%. In 1953 it was possible to extract 60% of the manganese content of the ore.
- b. It is hoped that the experience gained with the hydrocyclotron will be used to good purpose in other fields of ore extraction; also that the various kinds of metals found together in ores may be sorted according to their specific weights.
- c. It is planned to be able to employ the above-mentioned apparatus also in the paper industry, for refining kaolin, as well as for refining all kinds of coke which are used in blast furnaces, and by this means reduce the quantities of incombustible residue.

25X1

S-E-C-R-E-T

NOFORN